

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A fuel cell comprising:

a porous insulating film;

a plurality of power generation units positioned on top of the porous insulating film, the plurality of power generation units including a pair of adjacent power generation units, said power generation units each including a first electrode facing said porous insulating film, a second electrode, and an electrolyte interposed between said first electrode and said second electrode, wherein a film having windows is laminated on said porous insulating film such that at least one of said first and second electrodes of said power generation units are disposed in said windows;

a first electrically conductive film that is disposed between said pair of adjacent power generation units and is not stacked on either of said adjacent power generation units, said first electrically conductive film being electrically connected to said first electrode of one of said adjacent power generation units, and extending in parallel to said first electrode; and

a second electrically conductive film that is disposed between said pair of adjacent power generation units and is not stacked on either of said adjacent power generation units, said second electrically conductive film being electrically connected to said second electrode of the other of said adjacent power generation units, and extending in parallel to said second electrode,

wherein said first electrically conductive film and said second electrically conductive film are separate and distinct from said first electrode and said second electrode,

wherein said first electrically conductive film or said second electrically conductive film has an expansion made of a same material as said first or second electrically conductive films, said expansion provided between said first electrically conductive film and said second electrically conductive film for connecting said first electrically conductive film and said second electrically conductive film, and

wherein a portion of each electrolyte of the pair of adjacent power generation units is sandwiched between the first and second electrically conductive films.

2. (Original) A fuel cell according to claim 1, wherein said first electrically conductive film is arranged in a substantially same plane with a gas diffusion layer of said first electrode, and said second electrically conductive film is arranged in a substantially same plane with a gas diffusion layer of said second electrode.

3. (Previously Presented) A fuel cell according to claim 1, wherein said first electrically conductive film is made of metal, and said second electrically conductive film is made of a composite material including a resin and an electrically conductive material.

4. (Previously Presented) A fuel cell according to claim 1, wherein said first electrically conductive film is made of a composite material including a resin and an electrically conductive material, and said second electrically conductive film is made of metal.

5. (Canceled)

6. (Original) A fuel cell according to claim 1, wherein a reactant gas supply passage and a reactant gas discharge passage extend through an end of said fuel cell.

7. – 11. (Canceled)

12. (Previously Presented) A fuel cell stack according to claim 1, further comprising:
a plurality of fuel cells, said fuel cells each including said plurality of power generation units arranged in a same plane and a pair of electrically insulating separators for sandwiching said power generation units,

a casing containing said plurality of fuel cells,

wherein a plurality of guide grooves are formed on at least one of said separators on a surface opposite to a surface facing said power generation units, for supplying a coolant along said separator;

a coolant passage formed in a spacing between said casing and said plurality of fuel cells so that said coolant flows along a surface of said casing, said coolant passage is connected to said guide grooves of each of said fuel cells in said casing,

a reactant gas supply passage and a reactant gas discharge passage extend through said fuel cells in a stacking direction of said fuel cells, and

a seal member provided on the at least one of said separators on the surface opposite to the surface facing said power generation units, where the seal member separates said reactant gas supply passage and said reactant gas discharge passage from said coolant passage.

13. (Previously Presented) A fuel cell stack according to claim 12, wherein the seal member extends along an entire width of the at least one of said separators on the surface opposite to the surface facing said power generation units, the seal member includes a bent portion that extends along a side surface of the at least one of said separators, the bent portion is interposed between said casing and said side surface of the at least one of said separators.

14. (Canceled)